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CATEGORY III INQUIRY SUBMITTAL
Aquatic Habitat Most Appropriate Location (MAL) Planning and Placement

Project Manager:

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Project Description: In the past, actions in the Delta have often been the result of a narrow focus to address one set of issues. Often this puts other concerns at risk, or even creates new ones. The CALFED process requires that Category Three and other CALFED projects examine the 'big picture' and address how individual solutions effect other objectives.
This project would identify the Most Appropriate Location (MAL) for the development of aquatic habitat in the Delta. The definition of MAL is that location where targeted aquatic species benefits are maximized and the effect of that ecosystem development is synergistic or has a minor effect on other objectives of the CALFED process. In the case of a proposed ecosystem action being evaluated creating a significant impact to other CALFED objectives, this process would help identify those areas as critical, and require projects proposed for those areas be evaluated for those impacts. In the last six years two similar projects were implemented for the selection of appropriate lands for habitat development in California. They are the Central Valley Habitat Joint Venture Wetlands Water Supply Program (CVHJVWWSP) and the Twitchell/Sherman Island GIS Pilot project.
This project would reside in the above mentioned CVHJVWWSP, or in a similar task force oriented program with GIS mapping capabilities. Aquatic habitat requirement criteria will be gathered from experts, and using available physical and chemical information gathered from the Delta, a geo-referenced map will be developed with a key to those areas that meet the criteria of desirable aquatic habitat while minimizing impacts or even meeting the objectives of other CALFED participants.

Example Ecosystem Information inputs:
Flow requirements Chemical requirements Physical structure Seasonal Depth
Proximity to other habitats Stressors Priority species Historical species counts

Example Physical/chemical Inputs:

Historical biological/water quality monitoring data		topographical data
channel depths	land use maps	Levee information
Modeling data for flow	Water Quality objectives	Location of diversions

Example Physical/chemical Inputs: (continued)

Location of discharges	Temperature	Soil maps
Rights of Way	Ownership maps	Proposed Delta Conveyances

Expected Ecosystem Benefits By developing the MAL for aquatic habitat, the success of aquatic restoration will be enhanced for two reasons. First, information will be made available to the ecosystem restoration groups that will aid in their design criteria. Second, there will be consideration of other CALFED objectives inherent in the MAL process, thus gaining input and support from other stakeholders in the CALFED process.

Feasibility: This planning project could be implemented after receiving approval from the various stakeholder groups in the CALFED process. The mapping process would not seek to decide on a priority of criteria for the habitat or other CALFED objectives, but on bringing the information together in a geographical context to provide the basis for analysis by all interested stakeholders, who then could decide upon the criteria for selection.

Monitoring and Data Evaluation: Either a geo-referenced mapping or GIS Software package would be used to develop data layers based on gathered data. Each stakeholder group in the CALFED process would be responsible for gathering and prioritizing the information prior to submittal to this planning process

Qualifications: The MWQI Program, which would provide input for the municipal water quality data, has been conducting Delta water quality research since 1982. The Water Quality Assessment data base currently contains over 140,000 records of water quality the Delta. The Program also currently aids in the funding of the DWR's Division of Planning modeling effort. In addition, the Water Quality Assessment Branch contains DWR's QA/QC unit, which provides guidelines for establishing accuracy in studies and data analysis.

Coordination with Other Programs/ Compatibility with CALFED Objectives: The project would be conducted in coordination with a number of other participants within CALFED, DWR and other agencies. Some of the participants might include:
CVHJV Wetlands Water Supply Program, DFG Natural Heritage Division , DPLA Land Use Section, and the DWR Central District for mapping and GIS
IEP Program (multiple agencies) , DWR Environmental Services Office, and private groups for habitat information.
MWQI Program, USGS, DWR Central District, DWR ESO, and DWR O&M for water quality data.
DWR and State lands, and Delta Protection Commission for ownership information.
NRCS, USGS for topographical and soils data.
DWR DOP modeling group and the USBR for water quality and flow information and modeling.
The goal of this project would be to provide information to locate aquatic habitat to meet not only the goals of aquatic species restoration, but either meet or minimize impact to other CALFED objectives, including: good water quality, water supply conveyance, and reduction of risk to land use and Delta infrastructure.